

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Patent Application of:)	Mail Stop Appeal Brief – Patents
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Maureen HEYMANS et al.)	Group Art Unit: 2445
)	
Application No.: 10/665,359)	Examiner: W. Goodchild
)	
Filed: September 22, 2003)	
)	
For: DETERMINING GEOGRAPHICAL)	
RELEVANCE OF WEB)	
DOCUMENTS)	

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REPLY BRIEF UNDER 37 CFR § 41.41

This Reply Brief is submitted in response to the Examiner's Answer, dated November 12, 2009.

I. STATUS OF CLAIMS

Claims 1-4, 6-14, and 16-47 are pending in this application. Claims 5 and 15 were cancelled without prejudice or disclaimer.

Claims 1-4, 6-14, and 16-47 were finally rejected in the final Office Action, dated April 17, 2008, and are the subject of the present appeal. These claims were reproduced in the Claim Appendix of the Appeal Brief filed on September 17, 2008.

II. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

A. Pending claims 30-34 and 47 stand rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter.

B. Pending claims 6 and 8-10 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent Application Publication No. 2003/0061211 to Schultz et al. (hereinafter "SCHULTZ").

C. Pending claims 1-4, 7, 11, 13-14, 16, 18-21, 30-32, 35-36, 38-39, 42-45, and 47 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over SCHULTZ in view of PCT Application Publication No. WO 02/15479 to Scarfe et al. (hereinafter "SCARFE").

D. Pending claims 12, 17, 22-26, 28, 40-41, and 46 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over SHULTZ in view of SCARFE and further in view of U.S. Patent Application Publication No. 2003/0023489 to McGuire et al. (hereinafter "MCGUIRE").

E. Pending claims 27 and 29 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over SHULTZ in view of SCARFE and MCGUIRE, and further in view of U.S. Patent No. 6,665,715 to Hourii (hereinafter "HOURI").

F. Pending claims 33-34 and 37 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over SHULTZ in view of SCARFE and further in view of HOURI.

III. ARGUMENTS

In the "Response to Arguments" section of the Examiner's Answer (pp. 17-24), the Examiner reiterates many of the allegations that are presented in the "Grounds of Rejection" section of the Examiner's Answer and the final Office Action, dated April 17, 2008. Thus, Appellants' arguments presented in the Appeal Brief, filed September 17, 2008, are applicable to those allegations. Appellants submit the following additional remarks.

1. Claims 6 and 8-10.

The Examiner alleges that the features upon which Appellants rely (i.e. providing a document to the second user based, at least in part, on a matching of the search rank of a returned document to a search query submitted by a first user) are not recited in the rejected claim (Examiner's Answer, p. 18). In the argument that the Examiner is addressing, Appellants were demonstrating that the Examiner's interpretation of SCHULTZ does not establish a proper case of anticipation with respect to claim 6. The Examiner appears to rely on a geographically defined query entered by a user of SCHULTZ as allegedly corresponding to location information, as recited in claim 6, and on the search rank of a returned document in relation to the geographically defined search query of SCHULTZ as allegedly corresponding to the geographical relevance of a resource, as recited in claim 6 (see Appeal Brief, pp. 11-12).

Claim 6 recites providing a document associated with a resource (that is accessed by first users) to a second user based, at least in part, on a matching of a geographic relevance of the resource (determined from an analysis of collected location information associated with the resource) to a second location information (that was determined to be associated with the second

user).

According to the Examiner's interpretation, Appellants substituted a geographically defined query entered by a user for location information, and the search rank of a returned documents in relation to the geographically defined search query for the geographical relevance of a resource in the above-noted feature of claim 6. Therefore, to anticipate claim 6, using the Examiner's interpretation of SCHULTZ, SCHULTZ would have to disclose providing a document to the second user based, at least in part, on a matching of the search rank of a returned document to a search query submitted by a first user. SCHULTZ does not disclose such a feature.

The Examiner further states that the Examiner's position is that the analysis information of the first user is not linked to the last feature of claim 6, which recites "providing a document associated with the resource to the second user based, at least in part, on a matching of the geographic relevance of the resource to the second location information" (Examiner's Answer, p. 18). Appellants submit that the Examiner's position is factually incorrect.

Claim 6 recites "A method of providing documents comprising collecting location information associated with first users that access a resource; performing an analysis on the collected location information to determine a geographic relevance of the resource; determining second location information associated with a second user; and providing a document associated with the resource to the second user based, at least in part, on a matching of the geographic relevance of the resource to the second location information."

Since the geographical relevance is determined by performing an analysis on the collected location information and the providing of the document is based, at least in part, on

matching the geographical relevance to the second location information, the analysis information is clearly linked to the providing. Therefore, the Examiner's position is incorrect.

For at least the reasons given above and for those reasons given in the Appeal Brief, Appellants respectfully request that the rejection of claims 6 and 8-10 under 35 U.S.C. § 102(e) based on SCHULTZ is improper. Accordingly, Appellants request that the rejection of claims 6 and 8-10 be reversed.

2. Claims 1-4.

The Examiner alleges that p. 18, lines 14-18 and pp. 16-17 of SCARFE disclose a cluster analysis in order to locate a cluster of geographically similar IP addresses (Examiner's Answer, p. 19). These sections of SCARFE were addressed on pp. 14-15 of the Appeal Brief. As stated on pp. 14-15 of the Appeal Brief, SCARFE discloses cluster analysis for objects in a factor space. The factors of the factor space, given in Table 1 on p. 21 of SCARFE, include such factors as types and length of packets, and the amount of packets sent within a given time period. Table 1 of SCARFE (or any other section of SCARFE) does not disclose or suggest that geographical location may be a factor in the factor space of SCARFE.

The Examiner alleges that SCHULTZ teaches finding geographically relevant documents, SCARFE discloses finding geographically relevant IP addresses by performing cluster analysis, and that SCARFE adds another way to enhance SCHULTZ (Examiner's Answer, p. 19). Alleging that one reference enhances another references is clearly insufficient for establishing a *prima facie* case of obviousness. Furthermore, the Examiner has not explained how the cluster analysis of SCARFE would enhance the method of sorting of search results

disclosed by SCHULTZ. Thus, the Examiner's allegations fall short of establishing a *prima facie* case of obviousness with respect to claim 1.

For at least the reasons given above and for those reasons given in the Appeal Brief, Appellants respectfully request that the rejection of claims 1-4 under 35 U.S.C. § 103(a) based on SCHULTZ and SCARFE is improper. Accordingly, Appellants request that the rejection of claims 1-4 be reversed.

3. Claim 31.

The Examiner alleges that SCARFE discloses performing cluster analysis on collected location information at least at p. 11, lines 22-25 (Examiner's Answer, p. 20). Appellants disagree with the Examiner's interpretation of SCARFE.

At the outset, it is not clear why the Examiner did not reference this section of SCARFE in the Final Office Action. Nevertheless, Appellants will address this section of SCARFE.

Lines 22-25 of p. 11 of SCARFE disclose:

S 7.3 The second classifying means 601 classifies each of the IP addresses in the firewall data 217 into one of the determined clusters for that time period (as per S 4.5). This occurs by performing a factor analysis for each IP address, then comparing the factor values with the cluster conditions detailed in Table 2.

This section of SCARFE discloses classifying IP addresses into clusters for a time period. IP addresses do not be reasonably correspond to location data points to which a plurality of network addresses were mapped (as recited in claim 30, from which claim 31 depends). Therefore, this section of SCARFE cannot disclose or suggest a geographic relevance component that performs cluster analysis on location data points (to which a plurality of network addresses were mapped) based on a determination of whether the location data points form one or more clusters, as

recited in claim 31.

Furthermore, this section of SCARFE does not disclose or suggest a determination as to whether the IP addresses form one or more clusters, as would be required by claim 31 based on the Examiner's interpretation of SCARFE. Rather, this section of SCARFE discloses classifying each IP address into one of the determined clusters for on time period. Therefore, this section of SCARFE does not disclose or suggest a geographic relevance component that performs cluster analysis on location data points (to which a plurality of network addresses were mapped) based on a determination of whether the location data points form one or more clusters, as recited in claim 31.

For at least the reasons given above and for those reasons given in the Appeal Brief, Appellants respectfully request that the rejection of claim 31 under 35 U.S.C. § 103(a) based on SCHULTZ and SCARFE is improper. Accordingly, Appellants request that the rejection of claims 31 be reversed.

4. Claim 32.

The Examiner alleges that since SCHULTZ discloses geographically relevant documents and since SCARFE discloses cluster analysis and probabilities of IP addresses falling within clusters as being a possible threat, the combination of SCHULTZ and SCARFE shows a probability that a location associated with a user search query is geographically relevant to the documents (Examiner's Answer, p. 21).

The Examiner does not explain how a cluster analysis of IP addresses within a cluster (based on such factors as time periods or characteristics of packets) to determine a security

threat, as disclosed by SCARFE, can be used to determine that a location associated with a user search query is geographically relevant to documents in a set of documents relevant to the search query. Appellants submit the Examiner's combination of SCHULTZ and SCARFE is clearly based on impermissible hindsight.

For at least the reasons given above and for those reasons given in the Appeal Brief, Appellants respectfully request that the rejection of claim 32 under 35 U.S.C. § 103(a) based on SCHULTZ and SCARFE is improper. Accordingly, Appellants request that the rejection of claim 32 be reversed.

5. Claims 35, 36, and 39.

The Examiner alleges that since SCARFE discloses that a cluster is determined by analyzing various IP address locations, several clusters may be formed, and in order to define the boundaries of a cluster, a center point must be chosen even if the center point may be adjusted as further analysis of IP addresses is accomplished (Examiner's Answer, pp. 21-22).

At the outset, Appellants submit that SCARFE does not disclose or suggest analyzing IP address locations. Furthermore, the Examiner's allegation that in order to define boundaries of a cluster, a center point must be chosen, is incorrect. It is not necessary to define a center point of an area to define the boundaries of the area, and in fact SCARFE does not disclose or suggest a center point of a cluster (see pp. 33-34 of the Appeal Brief).

For at least the reasons given above and for those reasons given in the Appeal Brief, Appellants respectfully request that the rejection of claims 35, 36, and 39 under 35 U.S.C. § 103(a) based on SCHULTZ and SCARFE is improper. Accordingly, Appellants request that the

rejection of claims 35, 36, and 39 be reversed.

6. Claim 27.

The Examiner alleges that HOURI discloses that based on the population of a number of users, the data may relate to a city, state, or country, and that the population of users is a population associated with a location (Examiner's Answer, p. 23). Appellants submit that the Examiner's allegation does not address the features of claim 27.

Claim 27 recites normalizing determined locations based on populations associated with locations of the determined locations. Appellants argued that HOURI does not disclose any kind of normalization of determined locations (see pp. 52-53 of the Appeal Brief). As disclosed in paragraph [0043] of the specification:

The normalization may be performed by, for example, scaling the total number of visitors from a particular city by a factor proportional to the population of the particular city.

HOURI does not disclose or suggest, for example, any kind of scaling in proportion to the population of a city.

For at least the reasons given above and for those reasons given in the Appeal Brief, Appellants respectfully request that the rejection of claim 27 under 35 U.S.C. § 103(a) based on SCHULTZ, SCARFE, MCGUIRE, and HOURI is improper. Accordingly, Appellants request that the rejection of claim 27 be reversed.

7. Claim 29.

The Examiner alleges that SCARFE-HOURI discloses that static IP addresses are given more weight and relies on col. 2, lines 34-67 of HOURI and pp. 9-11 and 16-18 of SCARFE for

allegedly disclosing this feature (Examiner's Answer, p. 23). Appellants disagree with the Examiner's interpretation of SCARFE and HOURI.

Col. 2, lines 34-40 of HOURI were addressed on p. 54 of the Appeal Brief. As Appellants demonstrated on p. 54 of the Appeal Brief, this section of HOURI discloses that association of an IP address with a geographical location is accomplished through a statistical analysis on the number of users connected to a particular host site and that their locations are obtained by a location tracking system. This section of HOURI does not disclose, suggest, or even mention static and dynamic IP addresses. Therefore, this section of HOURI cannot disclose or suggest that dynamic IP addresses are given less weight in a cluster analysis than static IP addresses, as recited in claim 29.

Pages 9-11 of SCARFE disclose part of a method for identifying rare event phenomena, including the steps of performing cluster analysis on IP addresses. This section of SCARFE does not disclose, suggest, or even mention static and dynamic IP addresses. Therefore, this section of SCARFE cannot disclose or suggest that dynamic IP addresses are given less weight in a cluster analysis than static IP addresses, as recited in claim 29.

Pages 16-18 of SCARFE disclose other methods of mapping IP addresses into clusters, including matching factors that characterize IP addresses against factors that characterize a cluster and reforming the clusters based on a series of rules. This section of SCARFE also discloses using triples of clusters instead of cluster pairs, the minimum data set to create rare event criteria, the validation of rare event criteria, and how rare event criteria would apply to more than one firewall system. This section of SCARFE does not disclose, suggest, or even mention static and dynamic IP addresses. Therefore, this section of SCARFE cannot disclose or

suggest that dynamic IP addresses are given less weight in a cluster analysis than static IP addresses, as recited in claim 29.

For at least the reasons given above and for those reasons given in the Appeal Brief, Appellants respectfully request that the rejection of claim 29 under 35 U.S.C. § 103(a) based on SCHULTZ, SCARFE, MCGUIRE, and HOURI is improper. Accordingly, Appellants request that the rejection of claim 29 be reversed.

IV. CONCLUSION

In view of the foregoing arguments and those arguments presented in the Appeal Brief, Appellants respectfully solicit the Honorable Board to reverse the Examiner's rejections of claims 1-4, 6-14, and 16-47.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

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